

Title (en)

System for diversity receiver for mitigating the effects of fiber dispersion by separate detection of two transmitted sidebands

Title (de)

System eines Diversitätsempfängers zur Verringerung der Faserdispersionseffekte durch die Detektion zweier übertragener Seitenbänder

Title (fr)

Système d'un recepteur de diversite a reduire la dispersion dans les fibres optiques par la detection separee de deux bandes laterales transmises

Publication

EP 1213858 A2 20020612 (EN)

Application

EP 01127367 A 20011121

Priority

US 72264600 A 20001128

Abstract (en)

Link robustness, chromatic dispersion and polarization mode dispersion (PMD) immunity can be improved in fiber optical system by using a method for receiving an optical double sideband signal over an optical fiber system, comprising the steps of splitting the received optical double sideband signal into an upper sideband signal and a lower sideband signal, photodetecting the upper sideband and the lower sideband, equalizing the photodetected upper sideband signal and the lower sideband signal, and combining the equalized upper sideband signal with the equalized lower sideband signal. While PMD compensation is envisioned as a major application, one may also use the method and system for chromatic dispersion compensation or dispersion slope compensation in high bit rate systems, i.e. using dispersion compensation fiber (DCF) for coarse compensation and diversity receiver with electrical equalizer for fine tuning. <IMAGE>

IPC 1-7

H04B 10/18

IPC 8 full level

G02B 6/00 (2006.01); **H04B 10/02** (2006.01); **H04B 10/18** (2006.01)

CPC (source: EP US)

H04B 10/2507 (2013.01 - EP US)

Cited by

EP1775862A1; EP2701324A1; WO2014029797A1; US9509407B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1213858 A2 20020612; **EP 1213858 A3 20020626**; **EP 1213858 B1 20031119**; CA 2359917 A1 20020528; CA 2359917 C 20060321; DE 60101252 D1 20031224; DE 60101252 T2 20040826; JP 2002223190 A 20020809; JP 3699673 B2 20050928; US 2005271393 A1 20051208; US 6959154 B1 20051025; US 7127181 B2 20061024

DOCDB simple family (application)

EP 01127367 A 20011121; CA 2359917 A 20011025; DE 60101252 T 20011121; JP 2001355771 A 20011121; US 19769905 A 20050804; US 72264600 A 20001128